**WHOLE CLASS DISCUSSION ACTIVITIES THAT PREPARE STUDENTS FOR SUCCESS IN ALGEBRA**

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**What a Whole Class Discussion Is**:

Teachers engage all students in a discussion of a math concept that furthers the students’ knowledge of Math

**Important Characteristics**

**The discussion tasks are carefully designed.** Examples: Answering an appropriate question pertaining to a mathematical concept, discussing a math problem, or considering the importance of a new concept they have learned.

**Students have time to prepare their responses before they talk in front of classmates.** Students require time to think about the conversational task and formulate a response to it (without being distracted by others’ hand-raising and blurting out of answers). It takes time for students to understand math problems, e.g., by taking them apart, thinking about their approach to them, and organizing their thoughts. Many learners benefit from:

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| * Taking notes – e.g., copying ideas from the board or screen or annotating math problems
 | * Taking structured notes with guided questions
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| * Completing sentence frame/s
 | * Completing a graphic organizer or thinking map
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| * Brainstorming independently, e.g., listing ideas
 | * Completing quick write assignments pertinent to the task
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**Students receive scaffolds such as student notes and summaries, visuals, graphic organizers, learner dictionaries, word banks and sentence frames.** For demanding tasks, teachers should provide students with scaffolds, like word banks and sentence frames, that model academic language.

**Students have opportunities to practice their responses with a partner (prior to whole class discussion)** Students team up with one or two partners to practice their responses to the task before the whole class discussion

**Teachers actively engage students.** Teachers use techniques to ensure that all students remain attentive and on task.

**Teachers hold students accountable for using academic language to complete task individually and with classmates. They use formative assessment.** Teachers monitor students’ language use. They walk around the classroom, listen to students’ conversations, provide guidance, and take note of specific strengths and weaknesses of students’ language use and conceptual understanding. They use check off lists and short exercises and quizzes to check students’ progress in obtaining the objectives.

**Some Requirements of a Well Structured Discussion Task**

***Clear Directions:*** The directions should be clearly provided in both speech and writing. Difficult words and language features should be clarified through pre-teaching. Students should understand the amount of time that they will devote to the task, the task requirements, and the behaviors that their teachers expect (for example, generating opinions, reasons and justification for opinions, providing examples and making predictions and hypotheses).

***A Model Response:*** The task should provide students with a model of the type of response teachers expect. This model should allow students to understand the task requirements (for example, generating opinions, reasons and justification for opinions, providing examples and making predictions and hypotheses).

***Elicitation of a Variety of Responses***: The task should invite a variety of responses.

**Teacher Preparation**

***Task directions:*** Teachers should prepare clear written and oral task directions for students and prepare to pre-teach students critical vocabulary and language features in the directions. They should post lesson task questions and directions before the lesson begins.

***Scaffolds:*** Teachers should prepare sentence stems, word banks or other scaffolds for their students’ use during the discussions. They should prepare to teach students how to use these scaffolds before the students participate in the culminating whole group discussion.

***Concept building activity:*** If needed, teachers should prepare and use a concept building activity before the task if students have limited knowledge of the topic.

***Language building activity:*** If needed, teachers should prepare and use a language building activity to develop students’ knowledge of key language features that they need to participate in the whole-group discussion.

**Engaging Students’ Attention**

1. Interrupt the lesson at appropriate times to make sure all students are on task.
2. Require a variety of nonverbal responses:
3. Ask students to focus on board, teacher, text, handout, visual
4. Ask students to highlight, underline, circle, check √
5. Ask students to use a hand signal (e.g., thumbs up/down) or other physical means (like clapping) to indicate if they understand directions, agree with their partner’s ideas, feel confident about the accuracy of their own opinion
6. Ask students to track while reading with finger or guide card
7. Use a verbal signal (like 1-2-3-Eyes on Me) to indicate that students should look at you and remain seated quietly when an individual, a partner, or a group task has ended.
8. Require a variety of student oral responses:
9. Ask for a choral response
10. Ask for an individual response (random, no hand raising)
11. Ask individuals that teachers have pre-selected to respond
12. Ask for a response with a sentence response frame
13. Ask for partner work – e.g., tell students to retell the task directions or restate their partner’s opinion
14. Ask for partner interaction that uses specific language features
15. Ask for small group interaction that calls on students to use specific language features

3. Ask students to complete a quick write assignment, sentence completion assignment or other assignment to summarize what they have learned.

4. Give students formative assessments to ensure students have obtained your language learning and mathematics learning objectives.

**Suggestions for Conducting the Whole Group Discussion**

* When beginning the discussion, remind all students of the question they are addressing.
* Give students a listening assignment to make sure even those who do not participate in the conversation are actively involved. The assignment could be a note-taking task in which students are asked to write a list of their classmates’ key ideas. Tell them that they will use this list in writing a quick write assignment in which they compare their own ideas with those of their classmates.
* Do not allow initial hand-raising or blurting out of answers.
* To get the conversation off to a good start and avoid awkward silences, try calling first on “nominated” volunteers that you identified during the thinking and writing phase of the activity. This should ensure a range of responses.
* Next, randomly call on students. Be careful to select students fairly and not to choose those with their hands up.
* Next, call on a few authentic volunteers, those with their hands up who want to participate.

**Why Calling on Volunteers is Not Effective**

 *Calling on volunteers excludes:*

* Students who need time to process questions and prepare their answers
* Students who are reluctant to participate in front of others
* Students who feel disconnected from school
* Many struggling language learners
* Many students who are doing poorly in math